



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**RMR-Somerset**  
Machine Id  
**18892 LIEBHERR A934B 028807-935**  
Component  
**Rear Differential**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0021700</b>	DJJ0018091	DJJ0011940
Sample Date		Client Info		<b>16 Apr 2024</b>	18 Jan 2023	02 Nov 2021
Machine Age	hrs	Client Info		<b>19831</b>	18580	16982
Oil Age	hrs	Client Info		<b>0</b>	500	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>190	<b>38</b>	31	68
Chromium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	2	0
Aluminum	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	2
Lead	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>70	<b>5</b>	6	30
Tin	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

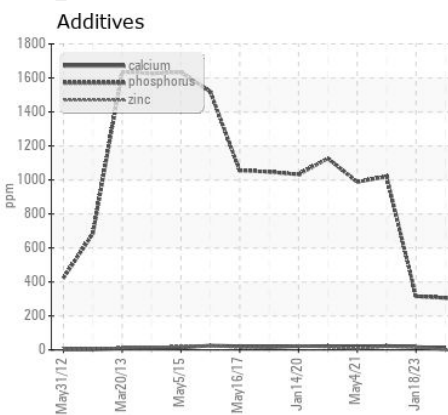
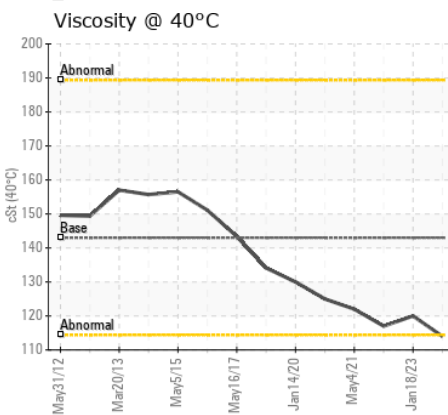
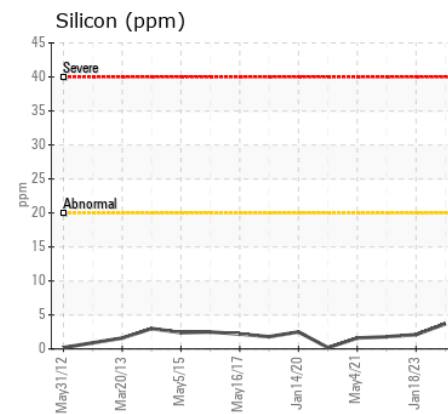
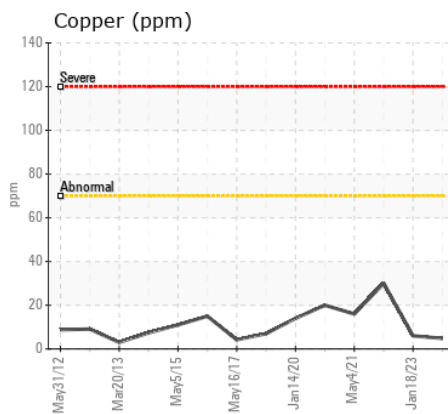
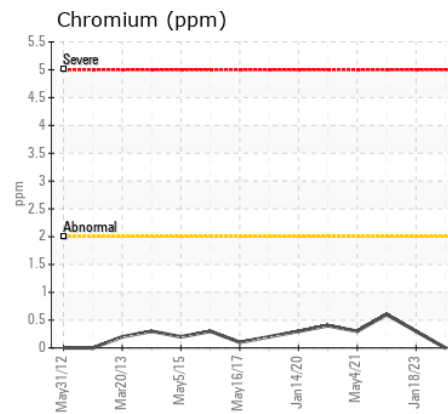
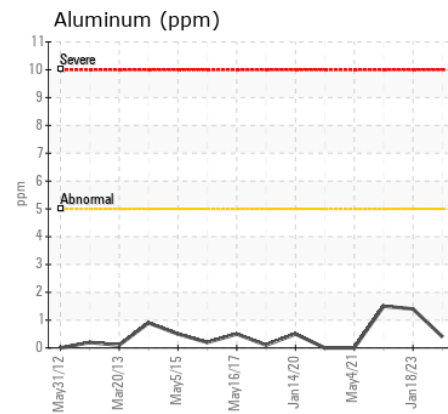
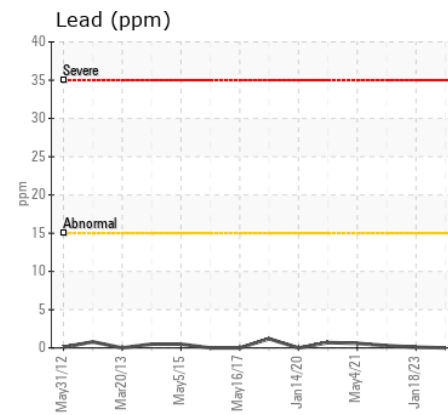
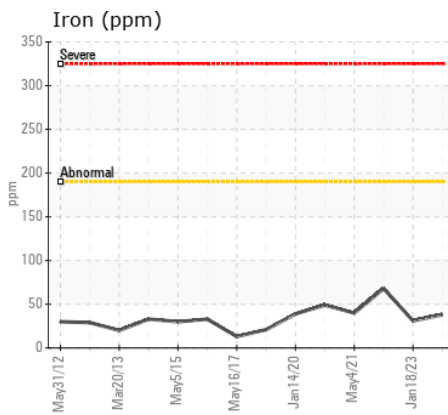
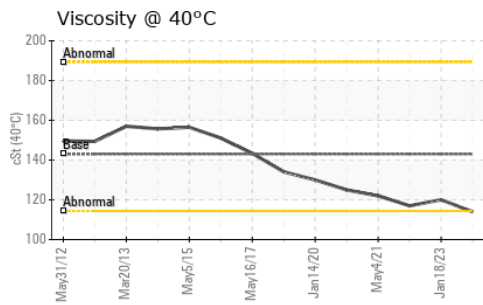
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>170	<b>0</b>	<1	0
Boron	ppm	ASTM D5185m	400	<b>&lt;1</b>	1	8
Barium	ppm	ASTM D5185m	200	<b>0</b>	3	1
Molybdenum	ppm	ASTM D5185m	12	<b>&lt;1</b>	<1	1
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	1
Magnesium	ppm	ASTM D5185m	12	<b>0</b>	2	3
Calcium	ppm	ASTM D5185m	150	<b>10</b>	18	24
Phosphorus	ppm	ASTM D5185m	1650	<b>306</b>	316	1021
Zinc	ppm	ASTM D5185m	125	<b>0</b>	15	18
Sulfur	ppm	ASTM D5185m	22500	<b>17125</b>	13959	13061
Visc @ 40°C	cSt	ASTM D445	143	<b>114</b>	120	117



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0021700  
**Lab Number** : 06154954  
**Unique Number** : 10990377  
**Test Package** : MOBCE  
**Received** : 19 Apr 2024  
**Tested** : 22 Apr 2024  
**Diagnosed** : 24 Apr 2024 - Jonathan Hester

**RIVER METALS RECYCLING - SOMERSET**  
 905 CRANE ROAD  
 SOMERSET, KY  
 US 42501  
 Contact: RYAN BOWDEN

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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